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AN AVERAGE OF 200 TEACHER EDUCATORS, STATE DIRECTORS, LAYMEN, AND REPRESENTATIVES OF VARIOUS AGENCIES ATTENDED EACH OF NINE REGIONAL CONFERENCES CONDUCTED THROUGHOUT THE UNITED STATES TO DISCUSS THE INFLUENCE OF SOCIAL AND ECONOMIC CHANGES AND PROBLEMS IN PLANNING AND CONDUCTING VOCATIONAL AND TECHNICAL EDUCATION PROGRAMS. MAJOR SPEECHES PRESENTED IN SUMMARY FORM ARE--(1) "THE ROLE OF VOCATIONAL EDUCATION IN GENERATING OCCUPATIONAL COMPETENCE FOR THE FUTURE" BY N.H. FRANK, (2) "OCCUPATIONAL AND TECHNICAL EDUCATION IN A CHANGING SOCIETY" BY F.C. MCLAUGHLIN, (3) "THE COMPUTER--HORSEPOWER OR BRAINPOWER" BY L.T. RADER, (4) "CAREER GUIDANCE AND THE SOUTH" BY F.C. ROBB, (5) "THE COLLAPSE OF AMERICAN PUBLIC SCHOOL EDUCATION" BY P.M. HAUSER, (6) "OPPORTUNITIES FOR REGIONAL ECONOMIC PROGRESS" BY C. KIMBALL, (7) "THE ROLE OF VOCATIONAL-TECHNICAL EDUCATION IN MEETING THE NEEDS OF THE WORK FORCE IN OUR CHANGING ECONOMY" BY J.L. INGLE AND ERNEST P. MILLS, AND (9) "MANPOWER DEVELOPMENT--THE ROLES OF GOVERNMENT AND INDUSTRY" BY P.B. SWAIN. SEVENTEEN CRITICAL ISSUES IN VOCATIONAL AND TECHNICAL EDUCATION WERE DISCUSSED BY CONFEREES AT ALL REGIONAL CONFERENCES. SUMMARIES OF INTEREST GROUP REPORTS ARE INCLUDED FOR FISCAL PLANNING, MANPOWER DEVELOPMENT AND TRAINING, PERSONS WITH SPECIAL NEEDS, RESEARCH, EVALUATION, TEACHER EDUCATION, GUIDANCE, STATE BOARD AND ADVISORY COMMITTEES, AND AGRICULTURAL, HOME ECONOMICS, TRADE AND INDUSTRIAL, TECHNICAL, OFFICE AND BUSINESS, DISTRIBUTIVE AND MARKETING, AND HEALTH OCCUPATIONS EDUCATION. (WB)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Social and economic issues and implications in planning and conducting vocational and technical education programs

ED019406

1966

REGIONAL

CONFERENCE

SUMMARIES

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
Bureau of Adult and Vocational Education
Division of Vocational and Technical Education
Washington, D.C. 20202

VT 01819

FOREWORD

This summary of the nine regional conferences conducted in 1966 has been prepared by the Program Planning and Development Branch of the Division of Vocational and Technical Education for the benefit of those who attended the conferences, as well as for the benefit of all others who are interested in the total program of vocational and technical education. The material covers the conference proceedings; however, some of the material has been rearranged and edited to avoid overlapping and duplication. While we have included in this document summaries of presentations made by visitors to the conference, we emphasize that the views and opinions expressed in such summaries are not necessarily the views and opinions of the U.S. Office of Education.

The Vocational Education Act of 1963 calls for continual evaluation and assessment of curriculum, teaching methods, program implementation, and administrative procedures.

The purpose of the regional conferences was to discuss the influence of social and economic changes and problems in planning and conducting vocational and technical education programs. These conferences were particularly valuable as they provided an opportunity for educators, laymen, and representatives from various agencies to discuss achievements, to identify gaps, and to coordinate activities according to the stated purposes of the Vocational Education Act of 1963. Each conference had an average attendance of 200 participants.

The information contained in this summary should provide a basis for a continuing discussion of State programs and needs. It may also be useful in planning State conferences in vocational and technical education.

Walter M. Arnold
Assistant Commissioner
for Vocational and
Technical Education

(Sample Format)

VOCATIONAL AND TECHNICAL EDUCATION

CONFERENCE

Theme: Social and economic issues and implications in planning and conducting vocational and technical education programs

VOCATIONAL AND TECHNICAL EDUCATION CONFERENCE

CONFERENCE AGENDA

Monday

6:30 p.m. - Dinner Meeting - State Directors and Branch Directors, DVTE

Conference Registration - 7:00 p.m. - 9:00 p.m.

Tuesday

Conference Registration - 8:00 a.m. - 9:00 a.m.

Opening Session - Chairman

9:00 a.m. - Remarks and Welcome

Regional Director, Department of Health, Education, and Welfare

Regional Representative, Office of Education

9:15 a.m. Overview of Conference and Challenges Facing Vocational and Technical Education

9:45 a.m. Utilizing Total Resources in Planning and Implementing Programs of Vocational and Technical Education

Symposium

10:15 - 12:00 Noon - Questions and Discussion

Critical Issues in Vocational and Technical Education

A list of issues for consideration is included in conference folders. Conferees should add additional issues to suggested list.

12:00 - 1:15 p.m. - Luncheon

1:15 - 5:00 p.m. - Chairman

Operational Problems in Planning and Implementing Programs of Vocational and Technical Education, such as:

(All participants will list on cards questions, problems, or issues which they would like to have answered or discussed. U.S. Office of Education staff and other participants will discuss all questions, problems, etc.)

a. Identifying and utilizing sources of information on job opportunities.

b. Developing annual projections of programs to meet the needs of the total State population.

c. Planning and implementing programs for persons with special needs.

d. Getting program information essential for planning and budgetary requirements.

e. Constructing and equipping facilities to meet the occupational needs of urban and rural populations.

f. Administering and coordinating the MDTA and vocational and technical education programs.

g. Program evaluation

h. Communications

7:30 p.m. - Chairman

Occupational and Technical Education for a Changing Society

Wednesday

9:00 -
12:00 Noon - Chairman

Continuation of Tuesday's Session

12:00 -
1:15 p.m. - Luncheon

1:15 -
5:00 p.m. - Chairman

Regional group meetings of directors, supervisors, teacher-educators, and others.

Updating existing programs and implementing new programs to meet the occupational training needs of the State and region.

Interest group sessions:

a. Fiscal-- Consultant
b. MDTA - Consultant
c. Persons with Special Needs - Consultant
d. Research - Consultant
e. Evaluation - Consultant
f. Teacher Education - Consultant

g. Guidance - Consultant
h. State Board and Advisory Committee Members - Consultant

Thursday

9:00 a.m. -
5:00 p.m. - Interest Groups - Occupational Areas

1. Agriculture - Consultant
2. Home Economics - Consultant
3. Trade and Industrial - Consultant
4. Technical - Consultant
5. Office and Business - Consultant
6. Distributive and Marketing - Consultant
7. Health - Consultant

7:30 -
9:00 p.m. - Chairman

Discussion of problems and implementing vocational and technical education programs involving two or more occupational areas.

Friday

9:00 -
12:00 Noon - Chairman

Closing Session

Symposium - "This We Believe"

Conclusions and recommendations by interest group chairman.

Announcements and discussion related to:

a. In-service seminars - workshops - conferences for 1966
b. Curriculum development - needs - plans
c. Research - State and regional projections

1. Section 4(c), Vocational Education Act of 1963
2. Purpose 6 (ancillary services)

Challenges to educational leadership in providing quality occupational training programs.

State Directors

ADJOURNMENT

SUMMARY OF PRESENTATION AT THE NINE REGIONAL CONFERENCES

Walter M. Arnold
Assistant Commissioner
for Vocational and
Technical Education

1. Vocational education is a modern means to social efficiency.

2. The need for vocational education grew out of the Industrial Revolution.

3. It is still a fact that most of this country's skilled workers acquired their skills by the pick-up method -- not even by organized on-the-job programs in industry.

4. The cost of the pick-up method is tremendous and is reflected in the prices of goods and services.

5. The real test of vocational education is whether it is actually efficiently serving modern life.

It is of the utmost importance for vocational education leaders today to understand the full implication of the interdisciplinary approach in all programs of vocational education. More specifically, vocational educators need to be concerned with the economic and social problems of the country as they relate to and affect vocational education. Similarly, vocational education has to be attuned to meet the needs and problems of a growing economy and a rapidly changing society.

The steps in implementing vocational education programs today are:

(1) The laws, Federal and State

These initiate the programs, state the purposes, and authorize the funds.

(2) The regulations, policies, and procedures at Federal and State levels

These expand and amplify the provisions of the laws and assist the States in implementing new and growing programs.

(3) The State Plan

This is the contractual agreement between the Federal Government and the State which describes the program standards and requirements under which the State will operate.

(4) The Projected Program Activities

This is a new step in the system. It requires each State to submit an annual report on how it proposes to spend the Federal

and matching funds and on what its needs are with respect to both employers and people. Each State must also explain and justify its proposed programs and expenditures in the light of the six new purposes of the Vocational Education Act of 1963.

(5) The Annual Reports -- Statistical, financial, descriptive, and special

The newly revised reports provide the first feedback of information into the system, and they will have considerable influence upon the directions the programs take.

(6) The Evaluation

This process provides continuous feedback into all of the previous steps in the system. It is made in the light of immediate and long-term goals. It measures both the quantity and quality of programs. Its great value is in identifying the deficiencies or gaps in the program: who is not being served and what is not being done, where, and why.

(7) Public Information

This part of the system (not working very well yet) is especially important for establishing a good image of the program among many different populations.

(8) Research

This is the most important feedback process of all. Recommendations and information based on research findings are disseminated back into the operational level of the programs. This process is of the utmost importance in making the whole program effective.

The whole system must be directed toward the ultimate goal -- an educated, skilled citizenry.

We are entering into a nationwide system of area vocational and technical schools of different kinds which ultimately will make vocational education opportunities readily accessible to persons of all ages, in all communities of the States.

The great leadership need in vocational education today is for the skilled administrator who is very well informed about all kinds of educational and training programs and, even more importantly, has the skill to adapt the programs to the needs of the people without the beneficiaries of the program being conscious of the source. The time

is rapidly passing when it will be possible for the traditional vocational educator to live and work only within the range of the traditional Smith-Hughes and George-Barden vocational education programs. If we do not develop the required leadership, we can be assured that such leadership will appear elsewhere.

If vocational education programs do not meet the needs of the people, we can also be assured that other persons and agencies will appear on the scene to meet those needs. To meet the needs of the people is the real challenge for vocational education leaders.

CONFERENCE SPEECH SUMMARIES

REGION I -- BOSTON, MASSACHUSETTS

THE ROLE OF VOCATIONAL EDUCATION IN GENERATING OCCUPATIONAL COMPETENCE FOR THE FUTURE

by N. H. Frank, Professor of Physics
Massachusetts Institute of Technology
Cambridge, Massachusetts

Everybody's education should be concerned with occupational objectives, regardless of his academic goals or what he does with his life. The need for the beneficial impact of vocational education upon all youngsters seems crucial.

One of the more salient features of vocational education is that it is based, primarily, on the objective of learning how to do a job well. Vocational education, of necessity, has a tight coupling to the actual world of occupations because it is designed to prepare people for real work. This major emphasis on "doing" provides a strong potential for excellence in investigative learning -- having a job to do, being frustrated in trying to get it going, and being driven to understanding what will allow one to get the job done. By capitalizing on the doing and the investigative learning characteristics of vocational education, the learning of academic subjects becomes necessary to doing the job better. The relevance of doing to learning is a dimension of education that has not been fully exploited, and the opportunity to rectify this vital educational deficiency lies right in the hands of vocational education.

Vocational education has, however, some shortcomings including: (1) self-limiting characteristics, (2) low status in the public esteem, (3) goals established only in terms of job classifications, (4) separation from the rest of education, (5) short life expectancy of even the best of skills, and (6) too much emphasis at the secondary school level.

Academic education has its share of shortcomings and salient features also. Some of the shortcomings are: (1) too much reliance on transferable knowledge -- learning by being told or reading what others have done; (2) the increasing abstractness of the curriculum -- remote from real operations; and (3) the belief that only one road leads to success.

On the brighter side of the picture, academic education: (1) enjoys top status in the educational community; (2) focuses on intellectual development and, in so doing, deals with complex, abstract, and general ideas (all of which will be invaluable in developing the required competencies of the future); (3) profits from the fact that teacher education programs have a built-in bias for replication; and (4) prepares people to take advantage of the accumulated knowledge and skills of man.

What is needed in education for occupations is an inversion of the current philosophy of vocational education. Instead of having the learning that accompanies skill development just strengthen the skill, we must have the development of skills serve as a springboard for further learning. What is also required, if we are to cope with the rapidly changing future, is the accumulation and organization of a clinical body of knowledge -- including in part skill, intuition, and judgment -- so our youth do not have to learn the "hard way," as most of us have had to do. The real need is for creating the potential so that skills and understanding can grow with changing conditions and not simply be transferred from one person to another without basic change or growth.

Occupational requirements will undergo marked changes in the future. Both the skills and the functions will be different, and there will be a shift to a demand for people who can design and perform manipulative operations, rather than for those who can just do things under direction.

REGION II -- NEW YORK, N.Y.

OCCUPATIONAL AND TECHNICAL EDUCATION IN A CHANGING SOCIETY

by Frederick C. McLaughlin, Director
Public Education Association,
New York, N.Y.

Public vocational education is in a great state of flux, and many pointed questions are being asked, particularly about secondary trade and technical programs. The general subjects of these questions are: (1) Early Vocational Choice, (2) Arrangements for Transfers between Vocational and Academic Programs, (3) Emphasis on Basic Tools of Learning, (4) Specialized vs. Broad Vocational Training, (5) Effects of Separating Students by Curriculum, and (6) Organizing Vocational Courses for Increased Popularity and Acceptability.

More specifically, considerable opposition to pre-employment training in high schools exists. This opposition is based mainly on the recruiting and training practices of employers and on the rapidly changing job market. If changes in the nature of the job market have made any impact on vocational education, it has not been particularly noticeable in New York City.

In attempting to find answers to the questions raised by these and other problems, the Committee and Trustees of the Public Education Association concluded that vocational training, as conducted in New York City, was not suited to the needs of the students or the times. The Association then proposed that the present system of separate vocational and academic schools be replaced by a series of comprehensive high schools to be staffed and equipped to provide a complete secondary school program and to offer curricula sufficiently broad and flexible to meet the individual needs of the great majority of students.

To implement these general purposes, the Association made the following recommendations: (1) Encourage students to defer career decisions and training until the last year of high school; (2) Provide skilled and semi-skilled training through apprenticeship programs, on-the-job training, educational skill centers, and cooperative educational programs; (3) Provide all students with courses which are broad, general, job-cluster oriented, and flexible; (4) Establish community skill centers for the training and retraining of both youths and adults; (5) Develop realistic teacher certification requirements; (6) Expand higher education facilities; and (7) Arrange for closer articulation among the comprehensive high schools, the institutes of higher learning, technical institutes, skill centers, labor unions, and employers.

REGION III -- CHARLOTTESVILLE, VIRGINIA

THE COMPUTER: HORSEPOWER OR BRAINPOWER

by Louis T. Rader, Vice President and
General Manager, General Electric Company,
Charlottesville, Virginia

We are living in the greatest episode of change in all human history, and the chief instrument of the change is the computer. In a little more than 10 years, the computer has moved out of the laboratory and into the mainstream of American life. There have been other such spurts in history. The most significant of these spurts was when the factories were electrified and the overhead belts and pulleys were replaced by a motor at each machine; now we have the computer. The computer may well have greater potential for the advancement of human progress than any other invention in all history has had.

What we are doing today with the computer, though, is really only a continuation of what we have been doing ever since man first used a tree limb under a rock as a lever: we are increasing the amount and kind of work we can do by using a machine. In essence, the computer is just the latest in a series of tools we have been using to increase the yield of our labor and to improve our collective lot.

Some are of the opinion that the computer has triggered a "second industrial revolution"; however, it may have triggered an even more powerful revolution -- an "intellectual revolution." The major difference between the computer and any previous machines we have had is that it enables us to turn electrical energy not only into horsepower but into brainpower as well.

REGION IV -- ATLANTA, GEORGIA

CAREER GUIDANCE AND THE SOUTH

by Felix C. Robb, President
George Peabody College for Teachers
Nashville, Tennessee

No longer do we say "The South will rise again!" It has risen. Despite severe handicaps and enormous problems, progress and a dynamic quality born with urbanization, industrialization, and education are hallmarks of the new South.

One hundred years ago the South was in a deep hole: paralyzed, impoverished, suffering. It still is on the rim of that hole but is climbing out, thanks to its own efforts and the generous help of others. More development has taken place in the last 25 years in the South than in the previous 75 years. Still, southern States have far to go to catch up with the Nation. We have to "trot" to hold what we have gained. To gain parity, to reach parity and then dare to dream of primacy, the people of this region must "run fast." This means harder work, greater alertness and resourcefulness, unremitting dedication, unparalleled cooperation among the major agencies and forces that shape our chances for improvement, and a still greater commitment to education.

If we are to surge ahead and do what States in the North, East, and Far West are doing for their people, we must devise ways to take several giant steps -- one of which should be in the field of guidance. We must leap-frog into the 21st century, taking the first leap now, this year.

A booming economy -- paralleled by social revolution, population explosion, automation, and other dramatic changes in the world of work -- emphasizes the growing need for effective career guidance and for education of a high order. No longer can we tolerate the paradox of poverty and chronic unemployment in the midst of plenty.

Lack of guidance is the chief bottleneck in the Nation's educational system. Neglect of this vital connector of human beings with the world of work -- to mention a major function, but by no means the sole one, of guidance -- is a national disgrace and scandal. There are only about 50,000 professionally trained and practicing guidance workers in the National to serve <u>all</u> schools, colleges, governmental agencies, businesses, and other agencies of our society. This shortage is acute; serious for the Nation, but doubly serious for the South.

The hard-working counselor is overwhelmed by demands and expectations. He is asked to handle a massively impossible task. What can we do? We can emphasize and accelerate as never before the important but neglected business of working together -- yes, all of us: those in business, labor, agriculture, education, and government at all levels -- in a combined effort that shall succeed because none of us can abide the alternatives to success in meeting human and societal needs.

Our colleges and universities can and must produce more competent guidance workers. We can and must devise ways to utilize subprofessional and paraprofessional people in aiding the professional counselor and guidance worker. We also can and must identify, cultivate, and utilize more of our latent talent and open wider the doors of career opportunity and education to all the South's people. New systems can and must be devised for the dissemination, wherever and whenever needed, of the most up-to-date and comprehensive information ever assembled about the world of work and how to become a successful part of it. We dare not fail in this endeavor.

REGION V -- CHICAGO, ILLINOIS

THE COLLAPSE OF AMERICAN PUBLIC SCHOOL EDUCATION

by Philip M. Hauser, Director and
Professor of Sociology
Population Research and Training Center
University of Chicago
Chicago, Illinois

It is an ironic fact that the Negro Revolt has spawned an Educational Revolt that is sweeping metropolitan United States. The disclosing of the shocking inadequacies of the public school education available to the Negro child in the inner zones of our central cities has, as a by-product, also laid bare the extreme inadequacies of the public education available to the white city child. Negro and white children in the inner cities have access to only a third- or fourth-rate education, as compared with that of the privileged suburban children.

Over the course of our national history, education has been the chief means by which the United States made its major contributions to the history of man, namely: (1) The demonstration that unity could be achieved in a Nation comprised of diverse ethnic and racial stocks; and (2) The demonstration that each person, no matter how humble his origin, could rise to whatever economic, social, and political level his capabilities permitted.

What has happened, then, to produce the present-day deficiencies in our educational system? The answer is to be found in the cumulative effects of the following developments: (1) the metropolitanization of the Nation; (2) the failure of State legislatures to meet their responsibility for giving support to urban education; (3) the structural and functional obsolescence of Boards of Education, and the ill-defined relationships between the Boards and the General Superintendents of Schools; (4) the failure of General Superintendents of Schools to keep abreast of 20th-century educational requirements, especially those Superintendents in our metropolitan areas subjected to huge in-migrations of rural populations; and (5) the apathy and complacency of the general public, which is more concerned with the costs than the quality of education.

Education is failing to provide for the needs of our urban youth, particularly the culturally deprived ones, in the complex world of tomorrow. And the presumed saving on education is being converted into huge tax expenditures for dealing with dropouts, delinquency and crime, unemployment, and health and welfare problems. It is becoming increasingly apparent that the Federal Government may have to save the States and cities from their own ineptitude and self-made morass.

REGION VI -- KANSAS CITY, MISSOURI

OPPORTUNITIES FOR REGIONAL ECONOMIC PROGRESS

by Charles Kimball, President
Midwest Research Institute
Kansas City, Missouri

Economic development is a primary concern of every State, and considerable attention is being given -- at both the State and National levels -- to the role of knowledge in business and economic growth. Advances in knowledge will comprise 46 percent of our national growth in the '60's and '70's. In fact, the "knowledge industry" represents about 30 percent of the gross national product in this country.

Essential to current and future economic growth will be an abundant supply of well trained technical, trade, and support personnel. It is incumbent upon vocational education to build the solid base of skills on which the spectacular achievements of the Ph.D.'s can rest.

The most significant changes since World War II have had to do with people -- their behavior, reactions, and aspirations. The major changes which have occurred include the following: (1) People are more mobile today than they were 20 years ago; (2) Education already is a major industry; (3) All people expect more today; (4) The U.S. economy has turned around completely, so that instead of 95 percent of our people being involved in supplying everyday needs, more than half of all our people are now supplying human wants.

Certain widely accepted assumptions about our economic developments need to be examined and, perhaps, even challenged: (1) Economic growth will come principally from manufacturing, which is often closely related to regional natural resources; (2) Agriculture is a permanently declining industry; (3) New industry will take up any slack in the economy, and therefore any new industry is good for a region's economy; (4) The future will be a simple extension of the past and present, on a smooth evolutionary curve; (5) New institutions are needed to solve our complex problems; (6) Our educational system and our universities, in particular, are of very high quality; and (7) A magic formula for economic growth has been discovered.

The present industrial make-up is determined either by proximity to markets or centers of knowledge and skills. Future growth industries will be increasingly knowledge-based. The traditional ground rules for economic development will no longer apply. Economically, our country is reshaping around the major employers in such services as distribution, transportation, finance, government, and trade.

REGION VII -- DALLAS, TEXAS

THE ROLE OF VOCATIONAL-TECHNICAL EDUCATION IN MEETING THE NEEDS OF THE WORK FORCE IN OUR CHANGING ECONOMY

by John L. Ingle, President
Oak Cliff Savings and
Loan Association
Dallas, Texas

Texas has had a long history of providing vocational education in the fields of agriculture and home economics. With the rapid growth in industrial and business expansion throughout the State, other occupational training programs have increased but have not kept pace with the needs of the labor force.

In the Dallas area, programs of vocational and technical education have been limited to small programs in the comprehensive high schools and have not reflected the total training needs in the work force of the area.

The Chamber of Commerce, labor groups, business, and industry are well aware of the needs for programs of vocational and technical education in the Dallas metropolitan area. Numerous conferences have been held with school officials and lay groups to consider the occupational training needs of the area and how programs could be implemented.

The new community college program for the area will provide new facilities and the organizational structure for post-high school programs. Consideration of the needs for area vocational schools are now underway, and when final plans are completed and implemented, the schools will provide facilities and broad programs to serve the secondary school students and those in the adult population who need initial or retraining programs.

REGION VIII -- DENVER, COLORADO

THE ROLE OF VOCATIONAL-TECHNICAL EDUCATION IN MEETING THE NEEDS OF THE WORK FORCE IN OUR CHANGING ECONOMY

by Ernest P. Mills, Director of Education
Public Service Company of Colorado
Denver, Colorado

A vital need exists in business and industry for establishing a "climate which is conducive to personal development." Although this idea is very nebulous, it is extremely important and underlies and supports everything else that is done in a particular organization. The critical question is what kind of an organizational structure will best provide the climate most conducive to achieving the continual upgrading of company personnel.

Industry has been turning more and more to formal education in an attempt to solve many of its manpower training problems. One result of the closer relationship between industry and education has been the movement of numerous professional educators into industrial training positions. This movement has helped immeasurably to upgrade the quality of training services available in these organizations; now the industry-trained personnel with training responsibilities must learn the art and skills of education and training, and the educator must learn about industrial policies, organization, and procedures.

An ever increasing need for highly trained technicians will exist in the future, and this requirement may demand that our technicians have as much as four years of technical training to bridge the gap between the engineer and the artisan or tradesman. With this end in sight, one can readily see that only through the cooperative efforts of industry, education, and government will our country be able to achieve its future goals.

REGION IX -- SAN FRANCISCO, CALIFORNIA

MANPOWER DEVELOPMENT -- THE ROLES OF GOVERNMENT AND INDUSTRY

by Philip B. Swain
Assistant Director of Personnel
The Boeing Company
Seattle, Washington

Our rapidly growing industries are outstripping our ability to provide the work force to keep up with the demand, for they are creating newer and more complex jobs faster than enough people are able to qualify for them. The Manpower Development and Training Act of 1962, as amended, represents a great advance -- both socially and realistically -- in meeting the manpower needs of our economy.

The Boeing Company finds the MDTA program especially valuable in providing entry-level skills for candidates who otherwise would not be acceptable for employment. Our training, however, does not end with the MDTA program. In fact, the MDTA program is only a tiny facet of the overall training effort at Boeing.

It appears that the supply of skilled workers will continue to be short, so many firms have already lowered their entrance-level requirements. Lowering the job entrance requirements, planning for optimal utilization of present employees, and engaging in effective training programs seem a must for most employers.

In general, industries working with local school systems and universities should be responsible for the training and development of their own personnel after they are on the job. Government is justified in entering the training picture at any time a significant social gain can be attained. Therefore government-sponsored training efforts should be directed toward those individuals who through lack of education, limited opportunity, or changing conditions are not able to qualify for even entry-level jobs. Many companies agree, though, that any subsequent training and development of their employees are the responsibilities of the individual organizations.

CRITICAL ISSUES IN VOCATIONAL AND TECHNICAL EDUCATION

Headquarters and regional staff personnel and State Directors, Supervisors, and Teacher-Educators were requested to identify major issues of concern to vocational educators which should be discussed by conferees at all of the regional conferences.

Seventeen issues were identified, and the list was distributed at all the conferences along with a brief explanation of each issue. Conferees were requested to select the five issues which should have top priority for discussion.

While all 17 issues were included in the distributions, six issues were selected for discussion by a majority of the conferees in the regional conferences:

Issue 2: Vocational and technical education in the high school

Issue 3: Vocational and technical education at the post-high school level

Issue 4: Coordinating vocational and technical education programs with occupational training programs of other agencies, organizations, and business and industry

Issue 8: The merits of utilizing college trained and certified teachers to conduct occupational training programs for gainful employment in all areas of vocational and technical education vs. those of employing occupationally competent instructors with limited professional qualifications

Issue 13: Advantages and disadvantages of various types of schools for vocational and technical education programs

Issue 15: A new prestige image of vocational and technical education to overcome the general apathy by youth, adults, and the general public toward occupational training.

No attempt was made to reach a consensus on the issues discussed at the regional conferences. All conferees were requested to discuss all issues during staff meetings and State and local conferences and to formulate State positions on the 17 issues.

Issue 1: Occupational orientation and pre-vocational aspects of the elementary and junior high school curriculum (MIT Report)

The traditional academic orientation of curriculum offerings at the elementary and junior high school levels -- continuing through senior high school in a large percentage of the schools -- is now being questioned by some academicians and by those interested in the transition of the student from public and private secondary and post-secondary schools to the rapidly changing world of work at all occupational levels.

The increasing number of school dropouts, unemployment of youth, and the rapidly changing skill requirements in all occupational areas are causing a reexamination of our traditional concepts by such groups as the Massachusetts Institute of Technology Vocational Education Summer Study Program.

Vocational and technical educators should be cognizant of the dialogue that is taking place and of the research and studies in progress. They should be prepared to formulate a positive position on this issue.

Issue 2: Vocational and technical education in the high school

There is growing concern on the part of some vocational educators, general educators, and others that there is a developing issue as to whether any vocational education should be taught in the high school at all.

The preponderance of evidence seems to indicate that there is a need for vocational education in the high school and that there will be a need for such education for many years to come. Is this view realistic, and what evidence do we have to support it? We know that many youth drop out before completing high school and that many more will complete their formal education with high school graduation and seek immediate employment. Where will they secure the necessary occupational training for entrance into the labor force? If we believe that vocational education should be an integral part of the high school curriculum, how do we resolve the following questions:

a. Should vocational education be specific for some students and general or pre-vocational for others, or not specific for any?

b. When should aspects of vocational education be offered in the secondary school?

c. What kinds of vocational education are most suitable for the high school?

d. Should all junior high students experience an occupationally oriented curriculum in a broad sense?

e. Should the separation of vocational schools and curriculums from the general academic programs, as has been the case in some centers, be continued?

f. Can high schools provide effective technical education programs, or should they concentrate on pre-technical programs?

g. Should vocational education be concerned only with education for a specific occupational objective and which leads to gainful employment?

h. Should there be established a pattern of experientially based vocational-technical education beginning at least in junior high school which would evolve continuously into a few broad but closely connnected avenues of education in the senior high school? Such a plan would allow some students to enroll in a specialized vocational training program leading to gainful employment immediately upon graduation while giving other students an opportunity to continue specialization in a post-secondary program of some kind.

i. What are the arguments pro and con regarding the most appropriate grade level for students starting high school vocational education programs -- grade 10, 11, or 12?

Issue 3: Vocational and technical education at the post-high school level

States have developed different patterns in post-high school vocational and technical education, with programs in comprehensive high schools, area vocational schools, technical institutes, junior and community colleges, and four-year colleges. Are there distinct advantages in operating post-high school programs in the different types of schools? Can we identify specific occupational training areas with different types of schools?

Should all vocational-technical training be moved out of the high school and into post-high school programs?

What prerequisites for enrollment in post-high school programs should be required?

Issue 4: Coordinating vocational and technical education programs with occupational training programs of other agencies, organizations, and business and industry

Can the public education sector do the total vocational and technical education job necessary to serve the population which desires it and the economy which requires it? Should it? Are there areas of occupational training which business and industry, the military, or private schools can do more efficiently and more economically?

As long as funds, teachers, facilities and equipment are limited, must vocational educators coordinate their efforts with other educational and training institutions? To avoid duplication of effort, how can we determine where the most effective and economical training should be given?

Coordination means bringing the ultimate consumer of the trained product, the employer, into planning and developing programs to advise on curriculums, instructional materials, equipment, facilities, and teaching staff. How can this be accomplished?

Coordination means the involvement of all government agencies in integrating their resources and functions, utilizing their experiences in vocational and technical programs where applicable, and being receptive to cooperative efforts. Who is responsible for accomplishing this kind of cooperation? Is such cooperation possible?

Coordination involves working closely with all aspects of the public and private education structure so that all students, youth and adults, have a continuum of the type of vocational education they need and can benefit from. How can this be accomplished?

Can many and varied cooperative education programs at high school and post-high school levels be promoted and conducted in all communities of all the States to meet the needs of students and employers?

Issue 5: How to meet training needs of persons in rural areas (Less than 2,500 population)

The problem of providing more and better vocational education for youth and adults in rural areas who are geographically isolated and in whose areas small numbers of students preclude a large expenditure of funds is a most difficult one. A larger number of course offerings, the recruitment of good teachers, the provision of ancillary services, the introduction of the rural students to the world of work in an urbanized society, and the opportunity for effective work experiences in a wide range of occupations are all concerns which must be coped with by vocational educators.

Nearly half of the poverty in the United States is in rural areas. The increasing out-migration from rural areas to urban areas requires the rural population to be better prepared for competing as adults in urban cultures. They must be made aware of the opportunities that now exist or will be developed to serve rural areas such as in the health, tourist, and service industries and decentralized manufacturing activity. They must also know of the wider variety of occupations available in urban centers.

How can their needs best be met? Should more school districts be consolidated, more area schools built, vocational boarding facilities provided? Can the rural high schools be more flexible by providing different course offerings which better reflect the job market needs in the State?

What are the possibilities for concerted service project experiments for rural areas in such States as New Mexico, Arkansas, and Minnesota?

Issue 6: How to meet training needs of persons in urban areas (over 2,500 population)

Can vocational education offer needed quality training programs simultaneously to all persons living in an urban complex?

a. The well-motivated and academically prepared student

b. The youth with special needs who requires supplemental help so he can succeed in the regular programs

c. The adult who requires initial training or retraining

d. The adult who requires training to upgrade his skills

e. The suburban youth and adult who need and want vocational education

In relating to the problems of the urban areas in offering vocational-technical education, consideration must be given to such problems as the following:

What kinds of schools can provide the needed occupational training programs? What administrative structure is required to implement and operate quality vocational-technical education programs?

How can the relations between the cities and the State Boards be strengthened? The need is especially acute today, when the inner

cores of cities are inhabited by a large proportion of low income families for whom vocational education can be an important benefit.

With all the agencies such as the Neighborhood Youth Corps, the public schools, the Youth Opportunity Centers, the Employment Service, the Manpower Development and Training Act programs, and private efforts sponsored by churches and social agencies working on the problem of job development and placement, should vocational education have its own staff to handle this area, or can it develop effective relationships with other groups to do so?

How can the big city manpower and training problems be more adequately dealt with through vocational education?

Issue 7: Trends in States to establish a board for administering and operating post-high school technical programs and adult programs, and a separate board to operate high school programs -- both under the State Board for Vocational Education

Recently some State legislatures have established separate boards for post-high school technical programs. This trend introduces a new dimension in the planning and administration of a total program of vocational and technical education.

Questions must be raised and answered as to why these separate boards are being established. Are presently constituted boards and administrative policies and procedures meeting the expressed public demands for vocational and technical education? What major administrative problems will States face in developing and operating a total program of vocational and technical education under the dual board system?

What advantages and/or disadvantages will result from the creation of dual boards?

Issue 8: The merits of utilizing college-trained and certified teachers to conduct occupational training programs for gainful employment in all areas of vocational and technical education vs. those of employing occupationally competent instructors with limited professional qualifications

A degree of occupational competency for vocational education instructors in the occupational areas in which they teach is required by many States and localities. This may be required either as a substitute for formal courses in professional education or in addition to them.

What kinds of instructors will be required to implement and operate new and emerging occupational programs in all occupational fields?

In times of acute teacher shortages there appears to be some tendency to make greater use of teachers with professional education requirements who are lacking in practical experience. The current emphasis on occupational experience because of rapid changes in technology, however, tends to strengthen the trend toward certification of teachers with occupational competency who lack professional training. What is the best procedure to follow in view of continued expansion of vocational and technical education and continued teacher shortages? What evidence can be produced to show the superior effectiveness of either emphasis or a judicious combination of both possibilities? What procedures or techniques must be developed for the selection of competent instructors in all vocational-technical fields?

Issue 9: Vocational guidance -- a function of the vocational education staff vs. an integral part of the total guidance program

The function of any guidance program is to assist pupils to recognize and evaluate their potentials and limitations and relate them to the requirements of change. Guidance programs must be developed on the premise that every pupil needs to strive for maximum personal development in accordance with a set of specific goals. A further assumption that every pupil must sometime take his place in life as a productive member of society is inescapable. Can we and should we attempt to draw a definitive line of demarcation between the so-called general guidance counselors and the so-called vocational guidance counselors? Can either of these counselors, if separated even by definition, function adequately to assist pupils to develop proper habits and attitudes?

Issue 10: The merits of the Federal Government preparing student instructional materials -- detailed courses of study

Tremendous expansion of activities in vocational and technical education in recent years has brought with it increased demand for instructional materials. This new emphasis brings with it unanswered questions. What is the future of curriculum development for vocational and technical education? Will curriculum planning and the production of instructional materials expand fast enough to meet emerging needs? Who will engage in the work of curriculum development? Who will be responsible for the construction of courses of study and the dissemination of new ideas and techniques of instruction?

Many educators believe that curriculum development is best undertaken as near to the point of instruction as possible. This view points to an increasing role of responsibility for State Departments of Education. Others feel that the Federal Government may be able to do the work expertly, with experienced recognized professionals

developing a flow of materials to the States or regions. Trends indicate increased activities on the State and local level, with maximum participation by teachers, supervisors, and curriculum specialists on the State and local level. What is the best solution to this problem?

Issue 11: The merits of requiring all vocational instructors to spend specific periods of employment in the occupational fields they are teaching as a prerequisite for certification renewal

Based on the principle that knowledge and technology in American life are continuously changing, the States require that teachers present periodically evidence of further study before their teaching licenses are renewed. For the vocational teachers, this seems to pose a dual responsibility. Should they be required to periodically update themselves in the technology of their specialization and also in the educational technology of the teaching profession? Can the issue be resolved by requiring teachers to update themselves in each of the areas, or is there a priority of one area over the other? If periodic employment in the occupational area they are teaching has value, how often should the teaching certificates be renewed, or how many weeks of employment should be required for this renewal?

Issue 12: The merits of all States setting up curriculum laboratories for the development and distribution of teacher and student materials

The constant flow of ideas, techniques, and materials of instruction from more educationally advanced sources to less developed areas will always go on through informal channels. However, the phenomenal expansion of vocational and technical education requires some immediate provision for the unprecedented quantities of materials of instruction which must be handled by some efficient agency of distribution. Can this best be done at the State level where the needs of the area are known? Should there be a duplication of such facilities in each of the 50 States, or should there be some regional or even national basis for such services?

The improvement of classroom instruction depends upon constant research and a flow of new ideas and improved instructional practices from an authoritative source. What is this source? Would it be the State University, the Federal Government, or some recognized institution which is preeminent in the field? What is the optimum organization and location of responsibility for this important educational function? How could the new Regional Educational Laboratories under the Elementary and Secondary Education Act of 1965, Title IV, be of service to vocational education programs? How should business, industry, and the ultimate employer be utilized as possible curriculum sources?

Issue 13: Advantages and disadvantages of various types of schools for vocational and technical education programs

Throughout our country we find vocational-technical offerings in comprehensive high schools, area vocational-technical schools, vocational high schools, technical institutes, community or junior colleges, and divisions or departments of four-year colleges and universities. What are the advantages and disadvantages of each type of school?

Can we recommend a "standard" form of school organization as being best for vocational-technical education? How do we investigate the merits and demerits of each form of school organization as a possible type of school to be operated within a State, based on the needs and geographic and educational philosophy of the area to be served?

Issue 14: The effectiveness of simulated experiences in contrast to actual experiences in occupational training for employment

We have been told that teaching machines, films, and other simulated experiences will provide the essential tools for training students for gainful employment. On the other hand, most vocational educators hold that the best media for instruction are real items which must meet industry standards and customer satisfaction.

Simulated devices such as the mock-ups, models, teaching machines, and other improvised items may have pertinent instructional value, but do they have the inherent motivation found in using the real object? Are students trained by the use of simulated materials for entrance into work as successful as students trained with real occupational experiences?

What is the criterion for real experiences in the field of occupational training? When can simulated experiences substitute for actual experiences?

Issue 15: A new prestige image of vocational and technical education to overcome the general apathy by youth, adults, and the general public toward occupational training

Can we let occupational training speak for itself, or must we pursue a more aggressive public relations program?

How do we relate to the paradoxical impression of vocational education -- on the one hand designed for the student of average or low academic ability and on the other hand for the training of high-level technicians?

Vocational education is considered by some to be education for obsolescent agricultural pursuits, for home economics, for education for those who are unable to succeed academically, for students who seem uninterested in any learning, and for those who are mainly interested in manual pursuits. Paradoxically, in some States it is associated only with high-level technical training.

Unfortunately, vocational and technical education is looked upon as low level training for those who cannot meet college entrance requirements by too many people who themselves or whose families can benefit from it. Such persons include suburban youth who do not want to go to college; those with special needs who are learning few or no marketable skills from general education; adults who need vocational education for initial employment, for retraining purposes, and for upgrading of skills, yet are unaware of the services which they can receive; and those who need basic education and are hesitant about getting started.

Is the expenditure of funds for public information a necessary budgetary item? What are the most effective means of reaching our audiences, and to which audience should priority be given? The community in general? The business community? The general educator?

Issue 16: The merits of cooperative training programs in occupational training of youth and adults in the service, semi-skilled, and skilled areas vs. those of the traditional institutional training programs

There can be no question about the success of cooperative programs when used for students who do not respond with expected results under classroom instruction. Such programs are most effective when dealing with students who are lacking in exposure to job experiences and serve well for motivation and guidance for vocational careers. Slow learners with need for many variations in approach and in instructional techniques do well with cooperative training, especially in service, semi-skilled, and unskilled occupations. On thorough analysis, is this the best plan of instruction?

Can the maximum yield of occupational knowledge and skills be produced by the coupling of classroom instruction with on-the-job work experience? Is the increased cost in terms of time, facilities, and coordination outweighed by the acceleration of the learning process or improvement in the quality and quantity of the educational product in occupational training? Does this form of training do more with a smaller segment of education for a special group? Does this plan work where conventional classroom instruction fails? How are comparative gains for alternate groups evaluated? These are questions which must be discussed to determine the relative merits of cooperative training programs.

Issue 17: The extent to which a vocational and technical education program can meet the occupational needs of all people of all ages in all communities

With the increasing impact of automation and its technological challenges the need to provide a continuing vocational-technical education program to meet the occupational needs of all people becomes increasingly complex. Can vocational-technical educators alone develop and maintain up-to-date facilities and staff to meet the rapidity of change? Can we utilize and coordinate far more effectively the resources of the many agencies and industrial and civic organizations of our communities to assist us to meet these needs?

Are we cognizant of the many occupational training programs offered by others in our communities?

How do we determine priorities of training areas and needs in the State and in communities?

INTEREST GROUP REPORT SUMMARIES

FISCAL PLANNING

1. Expenditures must be identified at the State and local levels according to the purpose for which funds are appropriated, and these expenditures must be in accordance with the State plan, State laws, and Federal regulations. Vocational education administrators and fiscal personnel have joint responsibility for the direction and control of vocational budgets. There must be assurance that funds are expended on the basis of professional and program requirements and not only on the basis of fiscal considerations. In order to facilitate a close working relationship, it is recommended that fiscal and program personnel offices be near each other.

2. Financial planning which involves the entire staff is an important phase of the State's projected program activities and should reflect a composite of the needs of the State and of local programs and services. State plan criteria for allocating funds for the various purposes and for local educational agencies, as well as the minimum percentages set forth for such purposes in Section 4 in the Vocational Education Act of 1963, must be observed when establishing priorities.

3. Revised regulations make provision for the State board to encumber the current fiscal year's funds prior to June 30 for special summer work-study programs to be conducted during July and August of the next fiscal year.

4. Revised regulations make provision for obligating a current year's fiscal funds for construction of area vocational education facilities provided the procedure is described in the State plan and is not in conflict with State or local laws.

5. States must do careful advance planning. If it is anticipated that the minimum percentages for purposes (2), (5) and (6) cannot be met, a request for waiver of Section 4(b) of the Vocational Education Act of 1963 must be obtained.

6. A request for the transfer of funds must be supported with justification which is in conformity with Regulation 104.28(b). Transfers must be requested annually, since States continue to receive allotments under the various vocational education acts.

7. Obligated funds for construction projects and special summer work-study programs should be reported as expenditures on the annual fiscal reports for the current year in which the funds are obligated.

MANPOWER DEVELOPMENT AND TRAINING

Concerns on a national basis are identified by three categories: refinement of long-standing procedures; alterations resulting from the recently released amendments to the Regulations; and new or changing goals resulting from the changes in the labor market.

Refinements. Increased, more frequent, direct, and detailed communication from MDTA Federal staff was suggested. The relationship resulting from guidelines between Division heads at Federal and State levels is very significant to operating personnel within the Divisions. Further clarification is needed on disposition and use of MDTA equipment; on-the-job training-coupled projects; disposition of audit exceptions; and experimental and demonstration projects.

Regulations. All those participating in the discussions indicated eagerness to obtain instructions on the requirements for in-kind matching. The "rental or public space" feature created much speculation.

Redirection. General acceptance of the challenge to further satisfy the need for services for the heretofore unemployable was expressed. At the same time regret was evident as the FY '67 appropriation appears to be reduced and, without detracting from the valuable contribution of other MDTA program components, further shifting of funds from the institutional aspect is indicated.

It is anticipated the annual Federal-State Planning System will improve long-range planning and development.

PERSONS WITH SPECIAL NEEDS

Participants in the special needs conferences were: (a) persons who were involved in some special types of programs; (b) persons assigned by their Director to attend the meeting; and (c) persons who were interested in getting programs started. However, because of the scheduling of this session, which was held simultaneously with others of concern to the Directors and their top administrative officers, none of the Directors was there to discuss what might be done in this area.

One of the recommendations which came from most of the regions was that there be a person on each State staff assigned the responsibility of working in the special needs area.

A variety of material was distributed for consideration after the sessions. Because special needs was a relatively new subject for discussion for most of the participants, the consultant served as a chairman so certain points could be made and certain information could be gotten from the State and local people which would help in planning. Most participants ended the meeting with statements to the effect that there had been good discussion and that they had gained new insights as to program development.

Many good questions were asked, and important points were made which were valuable for use in preparing a publication of case studies. The group learned what is going on in other States and met people with whom contact for further information will be maintained.

It is obvious that this was the first time that the participants interested in discussing and sharing ideas with each other had gotten together. Many were eager to tell about what they were doing: about the techniques they were using, the kinds of courses they were offering, and the relationships they were establishing with other agencies. A feeling of frustration was often expressed that more people, especially administrators and superintendents, were not able to attend these discussions. A recommendation was made that the Division sponsor regional meetings devoted exclusively to special needs or that it stimulate each of the States to hold workshops, on an interdisciplinary basis, for the State and local educators.

It is obvious that there is much more concern this year for doing something about persons with special needs than was evident at least year's regional meetings, and increasingly more programs are being developed. The concern was evident when questions were raised in the meetings and when the consultants had an opportunity to discuss the subject with the occupational groups. This interest momentum should be exploited and followed up. Everyone was aware that the area of education for persons with special needs would be looked into most critically by the Secretary's evaluation committee.

RESEARCH

Presentations and discussions were built around the following areas:

1. Purpose of Section 4(c) of the Vocational Education Act of 1963

2. Role and concepts of the Division of Adult and Vocational Research, Bureau of Research, and its Branches:

   a. Employment Opportunities Branch

   b. Human Resources Branch

   c. Educational Resources Branch

3. Operational procedures of the Division of Adult and Vocational Research

4. Accomplishments during the past 18 months, including priorities established for 1967, such as those for:

   a. Evaluation

   b. Curriculum development

   c. Recruiting and training personnel

   d. Career choice and vocational counseling

   e. Personal and social significance of work

   f. Adult education

   g. Program organization and administration

5. Retrieval and dissemination of completed research project information. These functions are being accomplished by the Educational Research Information Center group in the Bureau of Research. There are a number of centers located in various regions of the country. The ERIC center for Vocational and Technical Education and Adult Education funded under Section 4(c) of the Vocational Education Act of 1963 is located in the Vocational and Technical Education Center at Ohio State University. A limited number of hard-cover copies of the completed research studies will be available for review; however, most of the abstracts and completed reports will be on microfilm and available on loan or for purchase.

6. Research Coordinating Units (RCU). There are 24 units approved to date, and the State Directors in whose States there are no units will be invited to submit proposals for their States.

RESEARCH (continued)

7. Seminars, workshops, and conferences. Fifty-seven programs are to be conducted in the summer of 1966.

8. Use of ancillary funds for research under Section 4(a) of the Vocational Education Act of 1963 as a means of conducting research of primary significance to a single State or to one or more communities within the State.

9. Areas needing emphasis. In order to establish priorities on the basis of need, your counsel is requested. There is a possibility that unsolicited proposals will receive secondary attention as compared with those which are proposed after consensus is reached as to the immediate need or as to which study can make the greatest contribution.

Recommendations or suggestions:

1. There was a consensus that regional meetings similar to the ones held should be continued, or that separate conferences limited only to research and kindred matters should be conducted. Committees composed of State and local personnel in each region should help plan such conferences.

2. Research committees which would work with RCU's, the American Vocational Association, and other groups in each region, and provisions for communication between regions were suggested.

3. Greater effort should be exerted to interpret research findings for the "doers" and "decision makers" -- teachers and administrators -- so that they might be incorporated into on-going programs or into new programs.

4. A new conceptual base upon which many vocational curricula can be built is needed. A common core could replace the separate curricula for each of the several vocational fields.

5. Duplicates of the Congressional releases concerning approved research should be sent simultaneously to the respective State departments of education.

6. Better communication through structured arrangements for research being proposed, as well as for on-going research, should be established within each State and between States.

7. More attention should be given to research by vocational educators since much of the research on vocational education is being done by researchers in disciplines other than vocational education.

EVALUATION

In virtually all the conference sessions, the opening exchange indicated concern with respect to the impending appointment of the review group by the Secretary of Health, Education, and Welfare; and with the roles of the State administrative officers, program supervisors, and local school administrators and teacher trainers.

It was agreed that evaluation should yield information useful as a management tool. It was also generally agreed that we would talk about three levels of evaluation -- of individual schools, particular programs, and the entire vocational-technical program in a State. Participants felt that whereas the three levels are related they are not necessarily additive. It is quite possible to have excellent schools and programs within a State and a completely inadequate total system of vocational-technical education. Examination of the entire vocational-technical system was the area that needed most discussion; it was the level about which the participants knew the least.

Evaluation of individual schools and of specific programs has been traditional over the years, and procedures for accomplishing this type of evaluation are reasonably well known. How to examine an entire State system is not well known, and much of the discussion was directed toward this question. It was pointed out that an overall evaluation usually employs an analytical approach rather than a team inspection approach. It involves determining items to be measured and data needed for these measurements. It was also pointed out that considerable attention should be paid to devising methods of measuring results or outcomes as well as processes or operations. An overall evaluation should try to measure how effectively available resources are being used as well as the proportion of the total program for which resources are available.

One of the most important areas of understanding to evolve as a result of these conferences was the realization by the participants of the tremendous new responsibilities resting with State administrators, through enactment of the Vocational Education Act of 1963. With this realization came the request for as much assistance as possible from the U.S. Office of Education for States to carry out their responsibilities. Suggestions for the headquarters office included maintenance of a continuous dialogue with State administration to help orient and train State administrators in the area of program evaluation.

Participants were in general agreement as to the need to appoint a person or group at the State level to organize and carry out evaluation activities and to be directly responsible to the State Director.

Each group, in all sessions, requested that evaluation be included as a subject for discussion at future regional conferences.

TEACHER EDUCATION

The teacher education sessions were unique in that for the first time teacher educators from all of the services were brought together. Briefly stated, the objectives of each of the sessions were geared to (1) the sharing of experiences in teacher education, particularly program innovations; (2) the identification of problem areas; and (3) the posing of possible solutions.

A major outcome of each of the sessions was a better understanding by the participants of the teacher education programs in each of the services. An attempt was made to emphasize the similarities in teacher education among the services which would aid in the solution of common problems.

In each of the services' sessions the critical need for teachers, and for not only expanded programs but also for program changes to meet changing needs, was recognized.

In discussing innovations and the need for change in teacher education as a result of the Vocational Education Act of 1963, the following suggestions were made:

1. The addition of office education as a vocational service.
2. The expansion of distribution and marketing programs to include preparatory programs.
3. The development of programs for gainful employment in home economics-related occupations.
4. The broadening of programs in agriculture to include programs of agriculture-related occupations.
5. The projected expansion of programs in health occupations.
6. A new look at training teachers to teach about occupations which cut across traditional services.
7. The establishment and expansion of curriculum laboratories.

Methods of recruitment for teacher education programs were a major concern of the sessions in response to the recognized need for increasing numbers of teachers. Suggestions, while too numerous to list, called for greater effort by all educational personnel, especially by vocational teachers, in identifying and encouraging competent students to aspire to teaching. In one

TEACHER EDUCATION (continued)

region a research and demonstration project was proposed for discussion. The project calls for a Statewide effort coordinated by professional staff persons at the State level. Various techniques of recruiting students and persons from business and industry will be tried and evaluated.

The question of the kind of work experience that should be required of vocational teachers was discussed in most, if not all, of the sessions.

Certification requirements were also a priority discussion item. The general conclusion was that requirements should not be considered sacred and should be modified so that desirable practices will not be inhibited.

GUIDANCE

The appropriate role and functions of the counselor were the major topics of the discussion, followed by the corrolary issue of counselor preparation. There was some criticism of existing conditions, and a few positive suggestions were made which bear on the counselor's role and preparation. All discussion groups emphasized the need for particular counselors to be assigned special leadership and coordination responsibilities with respect to vocational guidance and counseling. The discussion groups also noted that all counselors must become more attentive to and proficient in the vocational aspects. Only one or two groups appeared to restrict their attention to "vocational students" and/or "vocational schools." Another group listed the following vocational guidance functions for the counselor: to provide individuals with the assistance and counseling necessary for effective vocational planning; to identify and encourage individuals who should do so to enroll in vocational education programs; to assist students in pursuing their plans; to help them in vocational placement; and to conduct follow-up activities.

With respect to the education of counselors, all groups emphasized the need for knowing more about the "world of work" and for using this knowledge in counseling and guidance activities. (Several groups extended this recommendation to include teachers as well.) Improved in-service training programs, supervised practicums, intership experiences, and didactic courses were also recommended. Business and industry, labor, and other organizations could help in many ways, e.g., by sponsoring special institutes for counselors. One group suggested counselors should be required to have some work experience other than teaching.

Improved communication and "team work" among counselors, between counselors and teachers, and between school personnel and non-school resource persons and community organizations were frequently advocated. Two or three groups suggested a periodic newsletter on vocational guidance.

Nearly all groups referred to the need for relevant research and development activities and called for the support of counseling and guidance projects at national, regional, and local levels.

Ways in which the financial and administrative support of vocational guidance and counseling were being programmed in various States were also discussed, as were some special problems in this area. Among the latter were the problems of rural areas, small schools, the "disadvantaged" population, and the articulation of guidance efforts from kindergarten through the 14th year of school.

STATE BOARD AND ADVISORY COMMITTEES

Discussion began with the Vocational Education Act of 1963 provision for State Boards or Advisory Committees. These bodies include members familiar with the vocational education needs of management and labor and members from junior colleges, technical institutes, or other institutions of higher education that provide programs of technical or vocational training.

Under the heading of "activities of advisory committees" the group agreed on the following functions:

1. That the Committee was advisory and not policy-making. In this connection, it was agreed that the Committee should be truly advisory and not just a listening body for progress reports.

2. That wherever possible the Committee should be involved as early as possible in the formation of new programs and projects.

3. In addition, the Committee should function in such activities as:

   a. Assisting in the determination of training needs.

   b. Supporting expanding programs by testifying before legislative committees.

   c. Communicating with State School Officers and local community leaders.

   d. Further promoting vocational education activities.

   e. Evaluating vocational programs and further promoting evaluation techniques. For example, one State is now engaged in an evaluation of its vocational program. The State Advisory Committee played an important part in the design of this survey.

   f. Suggesting locations for area schools.

   g. Suggesting realistic change in existing programs.

   h. Reporting attitudes of community groups, such as industry, labor, and farm groups toward existing and new programs.

   i. Contacting key community leaders to obtain support for existing vocational education programs.

STATE BOARD AND ADVISORY COMMITTEES (continued)

j. Assisting with the planning of facilities and equipment.

k. Providing continuing coordination between business, industry, and farm groups and the vocational program.

l. Advising on developing operating programs such as those for teacher recruitment, counseling, or public relations.

It was agreed that when properly constituted and used, the Advisory Committee is a necessary and important part of our program. Given worthwhile roles to play, the Committee adds much to vocational education. It was stressed that continuous communication with individual members was necessary by personal visits, telephone calls, and proper briefing of new members.

Finally, it was stressed that Advisory Committees should not be used as "window dressing" but should really assist in the upgrading of all vocational education.

Some problems handled by Advisory Committees include:

1. Assembling and providing adequate information for committee members.

2. Assigning members to the advisory committee who will attend meetings and work at the solution of problems.

3. Deciding on the specific functions of the committee.

4. Deciding on priorities of activity.

5. Arranging an appropriate number of meetings.

6. Conducting meetings that work on problems rather than meetings where staff people report and committee members only respond with questions and assent.

7. Determining the role of advisory committee members.

The Committees must also answer these questions: Do members express their personal views alone? Do they represent an organization? Can they influence others effectively if they function as individuals?

Committee members should express their own opinions on issues before the advisory committee, but labor people can have great influence through their State and local organization. If the leadership of labor organizations is excluded from the selection of labor committee members, the labor people on advisory committees may be unable to reach key leaders and members of labor unions through established organizational channels.

AGRICULTURE EDUCATION

Forty-eight of the fifty-two States and outlying parts were represented at the regional conferences held this spring. Each regional group discussed the following six major areas of concern in program development:

1. Recruiting and Training Teachers
2. Providing Essential Occupational Experiences for Students
3. Promoting Manpower Development and Training Programs in Agriculture
4. Involving Joint Staffs in the Future Farmers of America Program
5. Determining Needed Curriculum Guides, Research Projects and In-service Clinics
6. Establishing Post-High School Programs

Specific conclusions in each of these six areas were reached, and these are being summarized in a comprehensive report for distribution to all supervisors and teacher trainers in agricultural education by July 1. Those attending the conference thought the meetings were very productive, although they agreed there was not sufficient time to discuss the various items in depth.

It was recommended:

That the major research project in agricultural education for 1967 be a comprehensive national investigation of the occupational opportunities and training needs in the field of agriculture. It was further recommended that this project be developed in cooperation with trade organizations in agriculture and conducted by some nationally known research organization.

That the highest priority topic for a technician training curriculum guide in 1967 be one in the area of "Operating and Managing Farm Business."

That major in-service training workshops in 1967 include developing occupational experience programs for students enrolled in vocational agriculture courses.

That "Developing Supervised Occupational Experience Programs in Vocational Agriculture" be given the highest priority among curriculum materials to be developed by the Office of Education in 1967.

HOME ECONOMICS EDUCATION

At each conference the discussion in the home economics group meetings centered primarily on two topics:

-- Promoting and initiating programs to prepare for occupations and home economics knowledge and skills, and

-- New challenges in home economics teacher education.

The reports of programs, research projects, and workshops given by conferees were evidence of increased interest and concern for initiating and developing training for home economics-related occupations. Members were confident they could cope satisfactorily with this new emphasis in the home economics program and could make needed adjustments and innovations in teacher education.

Other conclusions and recommendations

-- The need for education for homemaking is as great as it ever was. Its programs need to be strengthened and expanded so they can continue to play their important role in raising standards of living, developing positive attitudes toward family life, and contributing to success in the world of work.

-- Employed women who cannot manage their homes and resources satisfactorily and give adequate guidance and care to their families and children are likely, also, to be unsuccessful in their jobs. Therefore, all girls and women in vocational education programs should receive, along with occupational training, preparation for their responsibilities as homemakers.

-- There are occupations involving home economics knowledge and skills for persons of various ages, levels of ability, and backgrounds. We should identify and train for all levels of occupations, i.e., child care aide, child day care center worker, and assistant to a nursery school teacher.

-- Home economics is really being challenged to serve "persons with special needs" and should increase its services to such groups in terms of their needs as both wage earners and homemakers.

-- Continued emphasis needs to be given to research in order to have reliable and valid bases for program development. More effective ways to share and implement research findings need to be found.

HOME ECONOMICS EDUCATION (continued)

-- Evaluation plans should be built into all programs. State and national leadership is needed to assist in making and carrying out evaluation plans.

-- Training programs for occupations which require skills in two or more vocational areas need to be given further consideration, with prime emphasis being placed on curriculum content and needs of students, as well as techniques of team teaching.

-- The new emphases in home economics programs require teachers with unique competencies and experiences; meeting these needs will call for imaginative and innovative pre-service and in-service teacher education programs.

-- Many avenues need to be explored and used in order to provide the necessary in-service education needs of home economics teachers participating in occupational programs and/or programs for "persons with special needs."

-- Certification requirements for teachers need to be studied with the aim of making them more flexible and providing for reciprocity between States.

TRADE AND INDUSTRIAL EDUCATION

The trade and industrial education sessions at each of the conferences provided the opportunity for each State to share information on new programs, practices, and ideas within the State. While there was some variation of specific topics discussed in the several sessions, the following represent the major areas of concern and interest:

-- Program Promotion and Development - A need is recognized for developing programs for training persons in a wider range of occupations. More information is required on manpower needs. While the State Employment Offices have been helpful, for the most part they have not been able to furnish detailed information on a broad enough range of occupations. Many of the States are exerting considerable effort to complete community or Statewide skill surveys.

-- Programs for the Disadvantaged - The responsibility for occupational training of the disadvantaged has been accepted by the leadership in trade and industrial education. Many problems and frustrations were discussed. Among these were the problems of convincing the community, parents, and school personnel of the need for occupational training and for identifying appropriate occupations for which training should be given. Many States are now providing training for a widening range of semi-skilled occupations.

-- Teacher Education - The need for adequate numbers of qualified teachers for the expanding programs is one of the greatest program problems. Recruitment from business and industry has usually been carried out at the local level. Several States are making efforts to recruit from a broader base. Additional patterns for recruitment and training of teachers are being considered by several States. Among these is the cooperative approach-- recruiting persons directly from industry and providing subsistence for an academic year of training.

More adequate methods of in-service teacher training were discussed. There was detailed discussion also about the need for sound working relationships between the State office and universities to provide off-campus services. Guidelines for establishing such relationships came under discussion.

TRADE AND INDUSTRIAL EDUCATION (continued)

-- Leadership Development - A critical need exists for qualified persons for administrative and supervisory positions in the expanding program. Many area schools are being opened and State staffs are expanding. Several States are conducting rather intensive leadership programs within the State. A desire was strongly expressed by many for continuing the National Leadership Conferences in Trade and Industrial Education.

-- Vocational Industrial Clubs of America - A report was given on the progress of VICA. Much satisfaction was expressed with accomplishments to date, and keen interest was shown by virtually every State that was not affiliated in developing its State program so that it could participate in the national organization.

-- Evaluation - Concern was expressed about the format, method, and nature of the projected national evaluation. States shared information on present efforts. The need for more detailed information on manpower demand was expressed. In some States the Employment Security Divisions were reported to be of great assistance. In other States the information provided was reported to be inadequate.

-- Work Study Program - The program was reported to be very successful in many States. Some concern was expressed about staffing for leadership of the program because of uncertainty regarding the level of funding.

TECHNICAL EDUCATION

It is significant that, by and large, the topics of mutual interest and concern to the conferees were remarkably similar in all the regional conferences. In almost every State the recruitment and education of technical teachers continue as the chief limiting factors to the growth of technical education programs. Recruitment of technical teachers is difficult because of the difference between school and industrial salaries. It is recognized that the professional education of technical teachers in the past has been inadequate; teacher education programs must be modified to place major emphasis on laboratory and classroom teaching-learning experiences. The development of suggested guidelines for technical teacher education by the U.S. Office of Education would be welcomed by the States.

Other observations and conclusions of the conferees follow:

1. Because of rapid technological changes, the number of summer institutes for teachers in all technical fields needs to be increased. Such institutes, sponsored under provision of Section 4(c) of the Vocational Education Act of 1963, will be necessary to keep teachers abreast of new technical developments.

2. There is a need for centralized Statewide planning for technical education programs in order to prevent unnecessary duplication of effort, equipment, and facilities. The variety of educational institutions offering technical education programs, which in some instances operate under different State agencies, emphasizes the need for coordination of effort.

3. There is an urgent need for expanding technical education offerings in areas other than the engineering-related technologies. These areas include programs based on the biological sciences, agriculture, and, in some cases, a combination of the physical and life sciences.

4. It was recognized that the curriculum guides developed through the U.S. Office of Education have been most helpful in the States. There is an urgent need for similar instructional materials in the biological sciences, agriculture, and other fields.

5. Technical educators need to consider the potential of prospective students who lack the necessary prerequisites to enter technical programs. Courses in mathematics, science, and communications must be made available to all students who lack the necessary background for successful entrance into technical programs.

TECHNICAL EDUCATION (continued)

6. Technical education programs cannot function efficiently in a vacuum. Advisory committees composed of selected knowledgeable representatives of employers and employees are essential to the planning and operation of technical education programs.

7. There is a need for the clarification and standardization of terminology in technical education, with emphasis on simplicity. There will, however, be increased common understanding of the meaning of important principles and the identification of jobs through use of valid criteria describing occupational functions and education requirements.

8. More occupational information and meaningful promotional materials are needed to assist guidance counselors in providing students with a better understanding of technical occupations.

9. Technical education is comparatively new. All the "publics" must be made aware of the role of the technician in this era of technological change and of the opportunities that technical education programs are providing for the youth of the Nation.

10. The conferees discussed problems of mutual concern, considered jointly approaches to be used in the resolution of these problems, and shared experiences in program development across the country.

OFFICE AND BUSINESS EDUCATION

The Office and Business interest groups at the regional conferences focused their efforts around these three main activities:

1. Each State Supervisor of Office Education reported on the current status of the Office and Business Education program in his State.

2. The tentative Guidelines for Office Occupations Teacher Education, developed at the Office Occupations Teacher Education Clinic at Wayne State University in Detroit, March 7-10, 1966, were reviewed and evaluated.

3. The office occupations education cycle, the scope and need for office education, and the world of work were discussed. From this discussion evolved THIS WE BELIEVE in Office and Business Education, which follows.

THIS WE BELIEVE in Office and Business Education:

-- Rapid technological advances and the impact of office automation are changing the speed with which office tasks are being done and the manner in which they are being performed. This requires a change in approach to education for office occupations -- teaching the whole occupation rather than merely individual subjects.

-- The overall purpose of education for office occupations is to provide the trained manpower needed to meet local, State, and national requirements for office workers, as part of a larger program of vocational education balanced in relationship to the local, State, and national needs.

-- Office education is designed to serve the needs of society through initial, refresher, and upgrading education. High school students, those who have completed or left high school, and those who have entered the labor market and need training and retraining require office education programs.

-- Office education should be available to persons with a wide range of abilities, from the very low and slow to the very high and competent, and to persons with special needs.

-- Office career education is provided through courses and curricula based on the career objective of the enrollee, including subject matter and practical experience, and through methodology and organization appropriate to the level of instruction and the capacity of the enrollee.

OFFICE AND BUSINESS EDUCATION (continued)

-- Joint programs with other vocational services are in operation, and more should be encouraged under a "team teaching" arrangement. Specialized teachers are to be responsible for teaching their specialties.

-- The educational cycle for office occupations develops by: analyzing the occupation and translating this analysis into educational procedures; using planned learning experiences as well as realistic opportunities to practice skills and knowledge; and placement in the world of work and evaluation on the basis of individual success on the job.

-- Teacher education to support the multiple teaching environments of office occupations education is essential.

-- A reciprocity system among the States should be developed for certification of teachers.

Revisions, additions, and deletions to the Office Teacher Education Guidelines were suggested. These recommendations were to be sent to Wayne State University, where a National Clinic will structure a final refinement of the Guidelines.

DISTRIBUTIVE AND MARKETING EDUCATION

The Vocational Education Act of 1963 places education for distribution and marketing in new perspective. Distributive education, faced with the responsibility of providing instruction to those not already employed in a distributive occupation, now has the opportunity to engage in training activities that will more closely approximate employment opportunities in a major private sector of the economy.

This new task became the center of deliberations during each of the regional conferences, and was examined in relation to present practices, resources, achievements, and problem areas.

The following statements from THIS WE BELIEVE reflect nation-wide consensus:

1. Distributive education is not a course but a program of instruction encompassing a variety of curricula.

2. Preparatory instruction in distribution and marketing satisfies vocational objectives through "cooperative training" and planned "project training."

3. A combination of project and cooperative training, or either used exclusively, are options available in organizing a curriculum.

4. To better serve enrollees sharing common objectives and to stabilize industry's support, specialized curricula should be encouraged at the high school and post-secondary levels. These curricula would prepare students for jobs in such fields as food merchandising, petroleum marketing, fashion merchandising, and floristry.

5. Pre-service and in-service teacher education must be adjusted to meet the demands of new program challenges.

6. Concepts relating to project training should be tested through pilot programs under the direction of experienced distributive education teacher-coordinators.

7. The program of youth activities of the Distributive Education Clubs of America is recognized as an integral part of the instructional program available to students in both project and cooperative training.

8. Because cooperative training has always been a major strength in the instructional program, distributive education must "expand and improve existing programs" following this plan of organization.

DISTRIBUTIVE AND MARKETING EDUCATION (continued)

9. Special effort must be exerted to work cooperatively with other vocational services in organizing and implementing curricula that meet special requirements in distributive occupations and in developing programs conducted jointly by teachers in the respective vocational programs.

10. The needs of distribution and marketing should be recognized by Federal and State officials when establishing priorities in research seminars and institutes, and in staffing research centers.

11. The implementation of project training will be dependent upon the availability of teacher-coordinators schooled in the new methodology.

A program planning committee composed of State representatives was established for each of the nine regions.

HEALTH OCCUPATIONS EDUCATION

Participants

The presence of State staff responsible for the supervision and administration of health occupations training programs, local directors of vocational education, and representatives of the Bureau of Employment Security, State departments of health, State boards of nursing, field and regional staff of the Public Health Service, the Vocational Rehabilitation Administration, and the Children's Bureau made the discussion at the health occupations group sessions particularly stimulating and interesting.

Summary of Discussion According to Topics

1. Trends in Health Occupations Training

   a. Program Development

      Legislation which has provided funds to State departments of health for developing a program to meet the needs of persons covered by Medicare has generated much of the new interest in initiating health occupations training programs.

      Most of the expansion of health occupations training continues to be at the post-secondary level. Community colleges are actively seeking vocational education funds for occupational training.

   b. Facilities

      The economic advantages of planning health occupations training centers rather than single health occupations programs were highlighted. Specifically cited were the numerous advantages of being an integral part of an educational institution which provides such supporting services as a guidance and counseling program with testing services, a teacher education program, consultant services, advisory committees, plus an adequate supervisory and administrative staff.

2. Appropriate Training Programs for Persons with Special Needs

   a. Carefully determining the individual's aptitude and area of interest

   b. Providing high quality training in appropriate occupational categories

HEALTH OCCUPATIONS EDUCATION (continued)

c. Responsibility for properly placing persons with special needs, and thoroughly explaining to the employer the handicaps of the person so that full use is made of the worker's competency as developed through training.

3. Successful Health Occupations Programs for the High School Student

a. There must be a willingness on the part of employers to accept young people.

b. Careful selection of students is essential for a successful program.

c. Such programs have value because they help the student evaluate his aptitude and attitude for the health field.

4. Qualifications Essential for a Health Occupations Specialist in the State or Regional Office

a. Subject matter knowledge as a basis for working and communicating with other health professionals

b. Knowledge of occupational analysis and of how to provide teacher education

c. A high degree of skill in human relationships.

Summary and Recommendations

-- The explosion of activity and interest in the health field requires adequate State and regional office staffs. Health specialists must be added to regional staffs as quickly as possible in order to provide the necessary services to the States.

-- Health Occupations Supervisors at the State level must have authority commensurate with the responsibility of their positions. They must be intimately involved in fiscal and Statewide planning matters as a basis for intelligent program development. Communications within the State must be greatly strengthened.

-- Many regional conference groups supported a resolution opposing the Position Paper of the American Nurses' Association.